



WISH & RICHARDSON P.C.

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number: 15827-026001
CERTIFICATE OF MAILING BY EXPRESS MAIL  Express Mail Label No. <u>EV663118206US</u>  Date of Deposit: <u>July 20, 2006</u>	Application Number 10/700,039	Filed November 3, 2003
	First Named Inventor George P. Klonis, et al.	
	Art Unit 3747	Examiner John T. Kwon

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request.

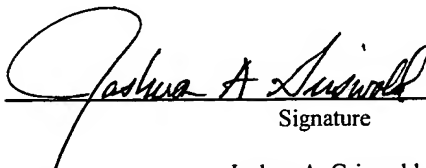
This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

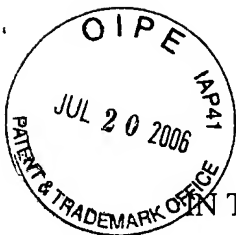
I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b)  
is enclosed. (Form PTO/SB/96)
- ☒ attorney or agent of record 46,310  
(Reg. No.)
- ☐ attorney or agent acting under 37 CFR 1.34.  
Registration number if acting under 37 CFR 1.34  
\_\_\_\_\_

  
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Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below'.

☐ Total of \_\_\_\_\_ forms are submitted.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : George P. Klonis, et al.                      Art Unit : 3747  
Serial No. : 10/700,039                                      Examiner : John T. Kwon  
Filed : November 3, 2003  
Title : SYSTEM AND METHOD FOR IMPROVING IGNITABILITY OF DILUTE  
COMBUSTION MIXTURES

**MAIL STOP AF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

REMARKS SUBMITTED WITH PRE-APPEAL BRIEF REQUEST FOR REVIEW

Claims 29-35 and 37-48 are pending in the Application. Claims 40-42 and 45-46 are withdrawn. Claims 29-35, 37-39, 43-45, and 47-48 are rejected. These Remarks address the rejections to claims 29-32, 35, 37-39, 43, 44, 47 and 48 under 35 U.S.C. § 102(b) as being anticipated by Heintzelman (U.S. Pat. No. 4,123,998), Goto (U.S. Pat. No. 6,209,511), Fisher (U.S. Pat. No. 2,646,782), and Meyer (U.S. Pat. No. 1,956,805). These Remarks also address the rejections to claims 33, 34 and 45 under 35 U.S.C. § 103(a) as being unpatentable as obvious over Heintzelman. All rights to address additional matters on appeal in any subsequent appeal brief or in subsequent prosecution are hereby reserved.

Independent claim 29 defines a main combustion chamber and an auxiliary combustion cavity and recites "the auxiliary combustion cavity sized to substantially protect the ignition source from fluid movement within the combustion chamber and cause at least a portion of the dilute combustion mixture adjacent the ignition source to be substantially quiescent." Independent claim 35 includes a similar feature. None of Heintzelman, Goto, Fisher and Mayer mention of the size of the auxiliary combustion cavity, much less teach that the auxiliary combustion cavity is sized to cause at least a portion of the dilute combustion mixture adjacent the ignition source to be substantially quiescent. Thus, in rejecting the claims it is argued that such feature would be inherent from the cited art. Applicants respectfully submit that the cited

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references fail to teach each and every limitation of the claims, because it has not been shown that the feature of the size of the auxiliary combustion chamber is inherent.

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). It is well established that proportions of features in a drawing are not evidence of actual proportions when drawings are not to scale. See, *Hockerson-Halberstadt, Inc. v. Avia Group Int'l*, 222 F.3d 951, 956, 55 USPQ2d 1487, 1491 (Fed. Cir. 2000), MPEP § 2125. Heintzelman, Goto, Fisher and Meyer each make no mention of the size of their auxiliary combustion chamber or that their figures are to scale. Thus, the proportions of the auxiliary combustion cavities in Heintzelman, Goto, Fisher and Meyer cannot be relied on in arguing inherency. The rejections provide no basis in technical reasoning or fact to support an assertion that the size of *every* auxiliary combustion cavity causes the combustion mixture adjacent the ignition source to be substantially quiescent. Therefore, it has not been shown that the feature of an auxiliary combustion cavity "sized to substantially protect the ignition source from fluid movement within the combustion chamber and cause at least a portion of the dilute combustion mixture adjacent the ignition source to be substantially quiescent" *necessarily flows* from the teachings of the cited references.

Accordingly, Applicants respectfully request withdrawal of the rejections to independent claims 29 and 35 under 35 U.S.C. § 102(b).

More so, with respect to Goto, independent claim 29 recites that "substantially all of the combustion mixture in the auxiliary combustion cavity is the dilute combustion mixture received from the main combustion chamber." Independent claim 35 includes a similar feature. Goto discloses that additional fuel is supplied to the auxiliary combustion cavity via a fuel injection port 15 (Goto, col. 4, ll. 57-62). Thus, Goto fails to disclose the feature of "substantially all of the combustion mixture in the auxiliary combustion cavity is the dilute combustion mixture received from the main combustion chamber." Accordingly, for this further reason Applicants

respectfully request withdrawal of the rejections to independent claims 29 and 35 under 35 U.S.C. § 102(b).

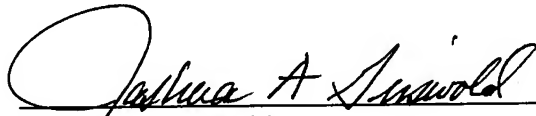
Claims 30-32 depend from independent claim 19 and claims 37-39, 43, 44, 47 and 48 depend from independent claim 35. Applicants respectfully request withdrawal of the rejections to 30-32, 37-39, 43, 44, 47 and 48 for at least the same reasons discussed above with respect to independent claims 29 and 35.

Regarding claims 33, 34 and 45 rejected under 35 U.S.C. § 103(a) over Heintzelman, these claims depend from either independent claim 29 or independent claim 35. The deficiencies of Heintzelman are discussed above. Therefore, Applicants respectfully request withdrawal of the rejections to claims 33, 34 and 45 for at least the same reasons discussed above with respect to independent claims 29 and 45.

Applicants believe no additional fees are believed due. However, please apply any deficiencies or any other required fees or any credits to deposit account 06-1050, referencing the attorney docket number shown above.

Respectfully submitted,

Date: 7/20/06

  
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